

CLAIMS

1. - A belt conveyor system comprising a closed-loop conveyor belt (16) and two remote belt-reversing units (18A, 18B) between which the belt is held, each reversing unit (18A, 18B) comprising a reversing roller (40) around which the belt (16; 116) is engaged, characterized in that one of the rollers (40) is equipped with drive means by which it can be set in rotation and by which the belt (16) can be driven, and in that the conveyor belt (16; 116) comprises, in its center part, a continuous support area (20) and, at the side, at least one longitudinal buoyancy tube (22; 122A, 122B).

2. - The belt conveyor system as claimed in claim 1, characterized in that the or each buoyancy tube (22; 122A, 122B) is integrated in the thickness of the belt (16; 116).

3. - The belt conveyor system as claimed in any one of the preceding claims, characterized in that the or each buoyancy tube (22; 122A, 122B) forms an individual annular closed space (24) extending along the whole of the circumference of the belt.

4. - The belt conveyor system as claimed in claim 3, characterized in that the or each closed space (24) is maintained at a pressure ranging between 1 bar and 5 bar.

5. - The belt conveyor system as claimed in any one of the preceding claims, characterized in that the belt (16; 116) comprises a buoyancy tube (22; 122A, 122B) along each longitudinal edge of the belt.

6. - The belt conveyor system as claimed in claim 5, characterized in that the buoyancies conferred to the belt (116) by the two longitudinal buoyancy tubes (122A, 122B) are different.

7. - The belt conveyor system as claimed in claim 6, characterized in that the cross sections of the two longitudinal buoyancy tubes (122A, 122B) are different.

8. - The belt conveyor system as claimed in any one of the preceding claims, characterized in that the belt (116) comprises, on at least one face, transverse ribs (130) distributed along at least a part of the circumference of the belt.

9. - The belt conveyor system as claimed in claim 8, characterized in that the belt (116) comprises transverse ribs (130) on its two opposite faces.

10. - The belt conveyor system as claimed in any one of the preceding claims, characterized in that each reversing unit (18A, 18B) comprises lateral spacing means (50) for the two strands (16A, 16B; 116A, 116B) of the belt emanating from the same reversing roller (40).

11. - The belt conveyor system as claimed in any one of the preceding claims, characterized in that the reversing units (18A, 18B) are such that the faces of the belt in contact with the liquid are opposite along the upstream strand and the downstream strand of the belt.

12. - A materials-transporting process, characterized in that it comprises the steps of rotating a belt (16; 116) of a conveyor as claimed in any one of the preceding claims directly on the surface of an expanse of liquid, and of disposing the materials to be transported on the upper support area (20) of the belt floating on the surface of the expanse of liquid.

13. - A recovery process for a floating substance, especially oil, on the surface of an expanse of liquid, characterized in that it comprises the rotation of a belt of a conveyor as claimed in claim 8 or 9 with a first edge only partially submerged and the second side edge totally submerged.